

## Research Article

<http://zoobank.org/References/2CD27E77-4893-4B5A-8E9A-3E5C73367AF5>

### First larval food-plant of *Marasmarcha ehrenbergiana* (Zeller), with some faunistical and nomenclatural notes (Lepidoptera, Pterophoridae)

Muhabbet Kemal<sup>1</sup> Ahmet Ömer Koçak

**Abstract:** First larval food-plant of *Marasmarcha ehrenbergiana* (Zeller), with some faunistical and nomenclatural notes (Lepidoptera, Pterophoridae). *Cesa News* 131: 1-6, 13 figs.

In this paper, larval food-plant of *Marasmarcha ehrenbergiana* Zeller is reported for the first time. Faunistical evaluation of the species is made. Specific identity of the material is discussed. Pupa, larval food-plant, and male genitalia are illustrated for the first time. The tribal names, *Exelastini* Gielis and *Marasmarchini* Tutt are discussed nomenclaturally.

**Key words:** *Lepidoptera*, *Pterophoridae*, *Marasmarcha ehrenbergiana*, larval food-plant, adult, pupa, fauna, Turkey, Siirt, Bitlis, male genitalia, tribal name, nomenclature.

This paper is about the larval food-plant of the pterophorid species, *Marasmarcha ehrenbergiana* (Zell.). Besides, the faunistical records of the species are evaluated. The specific identity is discussed. The tribal names, *Exelastini* Gielis and *Marasmarchini* Tutt are compared and discussed nomenclaturally.

During the field studies around the Süphan Volcano (Bitlis Province), carried out by the authors in 2015, within the research Project<sup>2</sup>, the first author collected a lot of pupae of both sexes and observed adults by day on the leaves of food-plant of *Marasmarcha ehrenbergiana* (Zeller), i.e., *Cicer anatolicum* (Fabaceae) – an Iranian-Turanian element,<sup>3</sup> on 4 July 2015. No caterpillar was seen, and all the collected pupae were hatched in the laboratory in the next days without parasite (Figs. 1-9).

<sup>1</sup> Asst. Prof. Dr. Muhabbet Kemal, Yüzüncü Yıl University, Faculty of Science, Dept. of Biology, Campus, Van / Turkey.

e-mail: [muhabbet\\_kemal@yahoo.com.tr](mailto:muhabbet_kemal@yahoo.com.tr) - <http://zoobank.org/?lsid=urn:lsid:zoobank.org:author:671DD110-BDF1-49C8-964D-2A9251BE7824>

co-author: Prof. em. Dr. Ahmet Ömer Koçak, c/o Yüzüncü Yıl University, Faculty of Science, Dept. of Biology, Campus, Van / Turkey.

e-mail: [cesa\\_tr@yahoo.com.tr](mailto:cesa_tr@yahoo.com.tr) - <http://zoobank.org/?lsid=urn:lsid:zoobank.org:author:4755104C-24B4-4E00-8831-5F5E08B9E831>

<sup>2</sup> This paper is a part of the Project, numbered 2014-FEN-B165, entitled “On the diurnal Lepidoptera fauna of Süphan Mountain”, supported by Yüzüncü Yıl University, Bilimsel Araştırma Projeleri Başkanlığı, Van, Turkey.

<sup>3</sup> The identity of *Cicer anatolicum* (Fabaceae) was confirmed by the botanist, Assoc. Prof. Dr. Fevzi Özgökçe (Van, Turkey).



**Fig. 1** – *Cicer anatolicum* (Fabaceae), food-plant of *Marasmarcha ehrenbergiana* (Zell.). Bitlis Province, Adilcevaz, Harmantepe 2290m. M. Kemal (Cesa).



**Figs. 2, 3** – *Marasmarcha ehrenbergiana* (Zell.), male at rest on *Cicer anatolicum*, larval food-plant. Bitlis Province, Adilcevaz, Harmantepe 2290m, 4 7 2015. M. Kemal (Cesa).



**Figs. 4, 5** – *Marasmarcha ehrenbergiana* (Zell.), in copula on *Cicer anatolicum* (left), female at rest on larval food-plant. Bitlis Province, Adilcevaz, Harmantepe 2290m, 4 7 2015. M. Kemal (Cesa).





**Figs. 6, 7** – *Marasmarcha ehrenbergiana* (Zell.), pupae of female on *Cicer anatolicum* leaf; from dorso-lateral (left), and lateral side (right). Bitlis Province, Adilcevaz, Harmantepe 2290m, 4 7 2015. M. Kemal (Cesa).



**Figs. 8, 9** – *Marasmarcha ehrenbergiana* (Zell.), pupae of the male on *Cicer anatolicum* leaf; from dorso-lateral (left), and lateral side (right). Bitlis Province, Adilcevaz, Harmantepe 2290m, 4 7 2015. M. Kemal (Cesa).

Material studied: 20♂♀. Bitlis Province, Adilcevaz, Harmantepe 2290m (13Af) (southern slopes of Süphan Volcano), 4-8 7 2015, M. Kemal & A.Koçak leg.; 1♂. Siirt Province, Şirvan Maden Pass 1360m (56Fm), 3 7 2013, M.Kemal & A.Koçak leg. (Cesa). The male genitalia of the latter shows some discrepancies from that of the former. However, they are considered here conspecific for the time being.

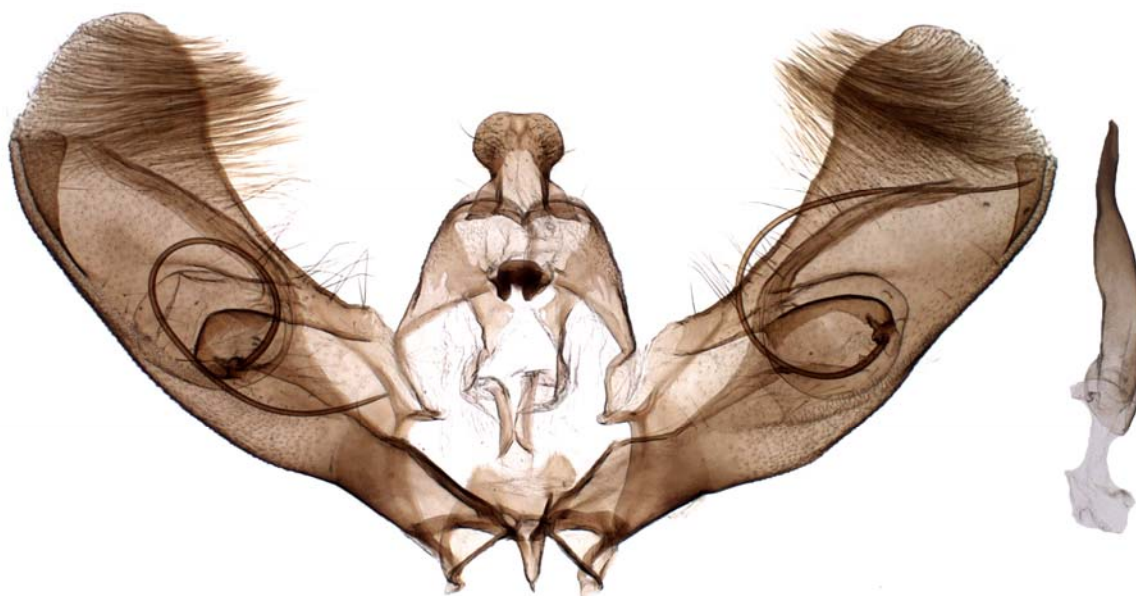
**Remarks:** Firstly, *Cicer anatolicum* is the first host-plant record, not only for *Marasmarcha ehrenbergiana* (Zell.), but also for the genus *Marasmarcha* Meyr. Secondly, the pupation of *M. ehrenbergiana* occurred openly on the upper surface of the leaves. It is interesting that no parasite attack has been observed in the nature. Thirdly, *Marasmarcha ehrenbergiana* (Zell.) was previously known in Turkey from the following provinces: Ankara, Konya, Kahramanmaraş and Mardin. The present records of this species are therefore new to the provinces Bitlis and Siirt (Koçak & Kemal, 2009).

#### On the identity of the adult

#### **(Fig. 10)**

Unfortunately, any male genitalia image of *ehrenbergiana* in the literature was accessible for us. However, the comparison of the male genitalia between *aibasovi* and *ehrenbergiana*, published by Ustjuzhanin (2001) helped in our decision. Ustjuzhanin stated “... differs in the valva apex; in the new species [*aibasovi*] it is rounded, without projections, while in *M. ehrenbergiana* projections are present; besides, in the new species the uncus has a triangular apex while in *M. ehrenbergiana* the apex is skewed... There are also differences in aedeagus structure: in *M. ehrenbergiana* it is relatively straight while in the new species it is curved.” Taking Ustjuzhanin’s

comparison into consideration (see above), we came subjectively to the conclusion that the male genitalia of our *Marasmarcha* belongs to the species *ehrenbergiana* Zell.



**Fig. 10** – Male genitalia of *Marasmarcha ehrenbergiana* (Zell.) GP2607. Bitlis Province, Adilcevaz, Harmantepe. M. Kemal (Cesa)

On the nomenclature of the tribal name of *Marasmarcha* Meyr.

(Figs. 11-13)

Gielis (2000) simply classified the genera under several bare tribal names. Among them, the following genera *Marasmarcha*, *Exelastis*, *Cordivalva*, *Hepalastis*, *Antarches*, *Fuscoptilia*, *Arcoptilia* were listed under the name “*Exelastini*”. There was no evidence that the name “*Exelastini*” was proposed by Gielis as a new tribe (**Fig. 11**). Therefore, the nomenclatural status of this name should be “unavailable”, without description and type-genus selection.

Genus *Cnaemidophorus* WALLENGREN,

**Tribus Exelastini**

Genus *Marasmarcha* MEYRICK, 1886

Genus *Exelastis* MEYRICK, 1908

\*Genus *Cordivalva* GIBEAUX, 1994

\*Genus *Hepalastis* GIBEAUX, 1994

Genus *Antarches* GIBEAUX, 1994

Genus *Fuscoptilia* ARENBERGER, 1991

Genus *Arcoptilia* ARENBERGER, 1985

**Tribus Oxyptilini**

**Fig. 11** – Original status of the name “*Exelastini*” (Gielis, 2000, *Quadrifina* 3: 59).

But yet, several authors, for reasons not understood, used the name “*Exelastini*” in their publications in the taxonomical sense of a name of a supra-generic category. One of the examples is given in the following image (**Fig. 12**)



...world. In *Postplatyptilia* the scale-tooth is often double.

Tribus **Exelastini** Gielis, 2000

Exelastini Gielis, 2000: 59.

*Marasmarcha* Meyrick, 1886

*Marasmarcha* Meyrick, 1886: 11.— Type species: *Alucita phaeodactyla* Hübner, [1813]: pl. 3, figs. 14, 15, by subsequent designation by Tutt, 1906.

**Fig. 12** – Current status of the name “*Exelastini*” (Gielis, 2006, Zool. Meded. 80: 191).

Whereas, Tutt (1906) published several subfamilies, *Platyptiliinae*, *Eucnemidophorinae*, *Amblyptiliinae*, *Marasmarchinae*, *Oxyptilinae*, in his monumental work. Tutt (1906: 251-253, 385-404) described in detail and proposed available a subfamily name *Marasmarchinae*, 94 years earlier than the name *Exelastini* by Gielis (**Fig. 13**).

(Krüper). ITALY: Piedmont — Courmayeur (Tutt), Sicily — Palermo, Messina, Madonie Mountains (Mina-Palumbo). NETHERLANDS: North Holland — Overijssel, Gelderland, in Zeeland, Gravenhage, Tiel, Zeddam, in Hulst, Limburg, near Maastricht (Snellen). ROMANIA (Caradja). RUSSIA: Baltic Provinces, common — Lechts (Huene), Riga district (Berg), Magnusholm, Aathale, near Segewold, near Neuhoof, Pichtendahl, Rotsiküll (Nolcken), Moscow district (Albrecht), Lower Volga district — Casan, Orenburg, etc. (Eversmann). SCANDINAVIA: Scania, Blekinge, Småland, Gothland (Wallengren), Norway — Bergun (Jordan), Aal, common (Strand). SWITZERLAND: rare — near Zürich, singly (Frey), Lenzburg (Wulschlegel), Bernese Alps (Boll), St. Gallen (Täschler), Degersheim (Müller), Bergün (Zeller), Simplon (Jaggi), Zermatt (Frey collection), Saas-Thal — Saas-im-Grund (Tutt).

Subfamily: MARASMARCHINÆ.

Tribe: MARASMARCHIDI.

The position of the genus *Marasmarcha* (*lunaedactyla*, etc.) has puzzled all our systematists, nor can we do more than indicate the characters that may aid in a right appreciation of its position. Hübner (*Verz.*, p. 430) placed it in the *Amblyptiliæ* with *acantha-dactyla*, Hb., *cosmodactyla*, Hb., and certain *Oxyptilid* species, *i.e.*, quite separate from the *Stenoptiliines*. In 1827, Curtis (*Brit. Ent.*, fo. 161) grouped it with the *Stenoptiliids*, on the *Alucitine*, and not the *Platyptiliine*, side of the plume phylum; as also did Stephens (*Illus. Brit. Ent. Haust.*, iv., p. 374), although, in his appendix (p. 424) to the volume, he combines it with the *Amblyptilias* and *Oxyptilines*, under the name of *Amblyptilia*. Zeller, in 1841 (*Isis*, p. 834), separated it both from the *Amblyptiliids* and *Oxyptilids*, and brought it into connection with the *Stenoptiliids*, placing both the latter and the *Marasmarchids* as sections of the same group as the *Leioptilids*, etc., whilst, in 1852, he united it with the *Stenoptiliids*, making the

**Fig. 13** - The beginning page of the original description of *Marasmarchinae* and *Marasmarchidi* by Tutt (1906: 385).

As the genera *Exelastis* Meyrick and *Marasmarcha* Meyrick are considered currently under the same supra-generic category, the name *Marasmarchini* Tutt, 1906 must be accepted as a valid name, instead of *Exelastini* Gielis, 2000, because of the priority rule. We propose, therefore, the synonymy in the following way:

### ***Pterophorinae* Latreille, [1802]**

*Pterophorii* Latreille, [1802], *Lepidoptera*, [in] Buffon & Sonnini, *Hist. Nat. Crustacés et Insectes* 3: 418. Type-genus: *Pterophorus* [Schäffer, 1766].

### ***Marasmarchini* Tutt, 1906**

**(stat.rev.)**

*Marasmarchinae*, *Marasmarchidi* Tutt, 1906, *A Natural history of the British Lepidoptera* V: 385-404. Type-genus: *Marasmarcha* Meyrick, 1886.

= *Exelastini* Gielis, 2000, *Quadrifina* 3: 59.

**(syn.nov.)**

Finally, the current usage of the name “*Exelastini*” is simply based upon a created perception in scientific circles, which is a situation that can not be tolerated.

## Acknowledgement

We thank to “Bilimsel Araştırma Projeleri Koordinatörlüğü” of the Yuzuncu Yıl University, for supporting our Project, numbered 2014-FEN-B165.

## References

- Gielis, C.**, 2000, Division of the Pterophoridae into tribes.- *Quadriřina* 3: 57-60.
- Koçak, A. Ö. & M. Kemal**, 2009, Revised Checklist of the Lepidoptera of Turkey. *Priamus* Suppl. 17: 1-253.
- Tutt, J.W.**, 1906. *A Natural history of the British Lepidoptera*. V. i-xiii, 1-558 pp. London & Berlin.
- Ustjuzhanin, P. Ya.**, 2001. New species, distribution records and synonymies of plume moths from the Palaearctic region.- *Nota Lepid.* 24: 11-32.

**Cesa News**

Cesa News is a peer reviewed online serial of the Centre for Entomological Studies Ankara (Cesa), established in 2008. It appears at irregular intervals as PDF format and includes original articles of the research workers of the Centre, regarding on various subjects on Entomology. The publication language is English or Turkish. Cesa News is archived online at "Internet Archive" since 2011, in accordance with the publication rules of the ICZN.

Cesa News is an open-access serial, distributed under the terms of the "Creative Commons Attribution License", which permits free use, and distribution in any medium, provided the original author(s) and source are credited.

## Centre for Entomological Studies Ankara



(A scientific Consortium)

(co-operation of research workers for pure-scientific, not commercial purpose)

Web Page of the Cesa: <http://www.cesa-tr.org/> - Digital Library of the Cesa: <https://archive.org/details/@cesa>

**Scientific Serials:** Priamus & Priamus Supplement (print and online versions) (ISSN 1015-8243)<sup>4</sup>, Miscellaneous Papers (print and online versions) (ISSN 1015-8235)<sup>5</sup>, Memoirs (print and online versions) (ISSN-8227)<sup>6</sup> DVD Films<sup>7</sup>, Iconographia Insectorum<sup>8</sup> (online), Cesa Publications on African Lepidoptera (online)<sup>9</sup>, Cesa News (online)<sup>10</sup>, Cesa Books (online)<sup>11</sup>

**Owners / Sahipleri - Editors / Yayıncılar:** Prof. em. Dr. Ahmet Ömer Koçak (c/o Yüzüncü Yıl University, Van, Turkey), Asst. Prof. Dr. Muhabbet Kemal Koçak (c/o Yüzüncü Yıl University, Van, Turkey).

**Editorial Board of all Scientific Serials of the CESA / Bütün Bilimsel Yayınların Yayın Kurulu:** Insecta, taxonomy, nomenclature, ecology, faunistics: Prof. Dr. Ahmet Ömer Koçak (Yüzüncü Yıl Üniversitesi, Turkey), Asst. Prof. Dr. Muhabbet Kemal Koçak (Yüzüncü Yıl University, Turkey).

**Chief referees of all Scientific Serials of the CESA:** Prof. em. Dr. Ahmet Ömer Koçak & Asst. Prof. Dr. Muhabbet Kemal Koçak: Insecta, taxonomy, nomenclature, fauna, ecology, catalogues, checklists of the Old World.

**Expert referees according to the subject areas:** Dr. Peter Huemer (Austria): Gelechiidae, and some Microlepidoptera groups in Palaearctic (Lepidoptera). Dr. J. B. Heppner (U.S.A.): Microlepidoptera of Nearctic and Neotropical. Dr. G. Baldizzzone (Italy): Coleophoridae (Lepidoptera). Dr. V. Korneyev (Ukraine): Tephritidae, Pyrgotidae, Ulidiidae (Diptera). Prof. Dr. Y.G. Verves (Ukraine): Sarcophagidae (Diptera). Dr. Daniel Burckhardt (Switzerland): Psyllidae (Homoptera). Prof. Dr. E. Heiss (Austria): Hemiptera. Dr. R. Ehrmann (Germany): Mantodea. Prof. Dr. Mustafa Ünal (Bolu, Turkey): Orthoptera. Prof. Dr. Hüseyin Özdikmen (Turkey): Coleoptera. Prof. Dr. Suat Kıyak (Turkey): Hemiptera, Hymenoptera (Cynipidae).

**Plant taxonomy, flora and vegetation:** Assoc. Prof. Dr. Murat Ünal, Asst. Prof. Dr. Mesut Pınar, (Yüzüncü Yıl University, Van, Turkey).

**Editorial policy:** The submitted manuscript is evaluated by the Chief Editor and Referee. In case of need, the manuscript is sent to expert referees according to the subject areas.

ALL RIGHTS RESERVED

Correspondences should be addressed to: Prof. em. Dr. Ahmet Ömer Koçak, c/o Yüzüncü Yıl University, Fen Fakültesi, Biyoloji Bölümü, Kampus, Van / Turkey. - e-mail: [cesa\\_tr@yahoo.com.tr](mailto:cesa_tr@yahoo.com.tr)

All the serials of the Cesa are archived regularly by the Internet Archive (300 Funston Ave., San Francisco, CA 94118, U.S.A.), in accordance with the rules of the International Codes of Zoological Nomenclature (ICZN)

<https://archive.org/>

and Zoological Record,  
Thomson Reuters,

Enterprise House, Innovation Way, Heslington, York, YO10 5NQ, United Kingdom  
[ts-emea-york.dcsadmins@thomson.com](mailto:ts-emea-york.dcsadmins@thomson.com)

<sup>4</sup> <http://www.cesa-tr.org/Priamus.htm> <http://www.cesa-tr.org/Pri.htm>

<sup>5</sup> <http://www.cesa-tr.org/Miscell.htm>

<sup>6</sup> <http://www.cesa-tr.org/Memoirs.htm>

<sup>7</sup> <http://www.cesa-tr.org/CDF.htm>

<sup>8</sup> <http://www.cesa-tr.org/Icon.htm>

<sup>9</sup> <http://www.cesa-tr.org/CPAL.htm>

<sup>10</sup> <http://www.cesa-tr.org/Cesanews.htm>

<sup>11</sup> <http://www.cesa-tr.org/Cesabooks.htm>